



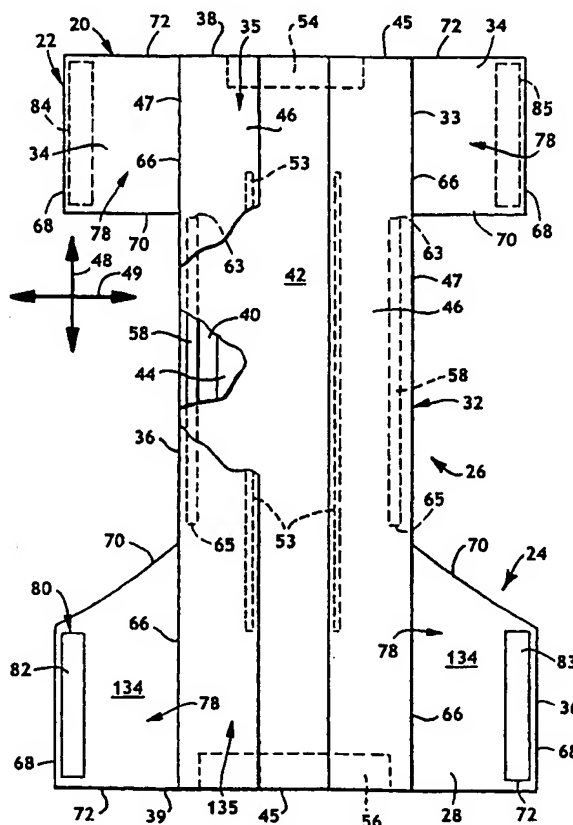
## INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

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(54) Title: ABSORBENT ARTICLES WITH REFASTENABLE SIDE SEAMS

## (57) Abstract

A disposable absorbent article includes an absorbent chassis and a fastening system that together define a refastenable pant. The refastenable pant includes a pair of elastomeric front side panels extending from the waist opening to each leg opening, a pair of elastomeric back side panels extending from the waist opening to each leg opening, and a pair of refastenable seams extending from the waist opening to each leg opening and positioned between the elastomeric front and back side panels. The transverse distance between the first and second fastening components on the back side panels is substantially equal to the transverse distance between the first and second mating fastening components on the front side panels.



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## INTERNATIONAL SEARCH REPORT

International Application No

PCT/US 99/29704

A. CLASSIFICATION OF SUBJECT MATTER  
IPC 7 A61F13/15

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)  
IPC 7 A61F

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 97 46197 A (SCA MÖLNLYCKE AB) 11 December 1997 (1997-12-11) the whole document	1-4, 6, 7, 9-13
A	---	8, 14-20
X	WO 98 18421 A (THE PROCTER & GAMBLE COMP) 7 May 1998 (1998-05-07) the whole document	1-6, 10, 14-18
X	WO 97 48359 A (KIMBERLY-CLARK) 24 December 1997 (1997-12-24)  page 20, line 5-14 page 21, line 8-19; figures 1, 4	1, 2, 4-6, 10, 11, 14-18
A	WO 97 36566 A (THE PROCTER & GAMBLE COMP) 9 October 1997 (1997-10-09) the whole document	1-5, 7, 8, 10-17, 19
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	-/-	



Further documents are listed in the continuation of box C.



Patent family members are listed in annex.

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Date of the actual completion of the international search

29 May 2000

Date of mailing of the international search report

08. 09. 2000

Name and mailing address of the ISA

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## INTERNATIONAL SEARCH REPORT

International Application No

PCT/US 99/29704

## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 4 402 690 A (ROBIN REDFERN) 6 September 1983 (1983-09-06) column 3, line 54 -column 4, line 2; figures 1-3 -----	7,19

# INTERNATIONAL SEARCH REPORT

International application No.  
PCT/US 99/29704

## Box I Observations where certain claims were found unsearchable (Continuation of item 1 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:  
because they relate to subject matter not required to be searched by this Authority, namely:
2. ☐ Claims Nos.:  
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
3. ☐ Claims Nos.:  
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

## Box II Observations where unity of invention is lacking (Continuation of item 2 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

1. ☐ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☒ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

1-20

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
- ☐ No protest accompanied the payment of additional search fees.

## FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

## 1. Claims: 1-20

Absorbent article having a fastening system comprising first and second fastening components disposed on the back side panels and adapted to releasably engage first and second mating fastening components disposed on the front side panels wherein the transverse distance between the first and second fastening components is substantially equal to the transverse distance between the first and second mating fastening components.

## 2. Claims: 21-24

Absorbent article having a fastening system comprising first and second fastening components disposed on support members bonded to and extending outward from the first and second elastomeric side panels in the second waist region and adapted to releasably engage first and second mating fastening components disposed on the respective first and second elastomeric side panels in the first waist region wherein the width of the elastomeric side panels in the first waist region is the same as the width of the elastomeric side panels in the second waist region.

## 3. Claims: 25-29

An absorbent article comprising a pair of elastomeric front side panels and a pair of elastomeric back side panels and a pair of refastenable seams extending from the waist opening to each leg opening; the front and back side panels having an average length dimension that is about 20 percent or greater of the overall length dimension of the absorbent article and having fastening components and mating fastening components each comprising mechanical fasteners having a length to width ratio of 5 or greater and engagement of the fastening components and mating fastening components defines refastenable seams that cover about 80 to 100.

# INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/US 99/29704

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
WO 9746197 A	11-12-1997	SE 512345 C CZ 9803949 A EP 0912153 A PL 330357 A SE 9602248 A SK 163798 A	06-03-2000 14-04-1999 06-05-1999 10-05-1999 07-12-1997 12-07-1999
WO 9818421 A	07-05-1998	EP 0839507 A AU 5240598 A BR 9712616 A EP 0975296 A AU 3221597 A CA 2219718 A CN 1237890 A WO 9818419 A	06-05-1998 22-05-1998 26-10-1999 02-02-2000 22-05-1998 30-04-1998 08-12-1999 07-05-1998
WO 9748359 A	24-12-1997	US 5938652 A AU 3377897 A CA 2256499 A	17-08-1999 07-01-1998 24-12-1997
WO 9736566 A	09-10-1997	US 5897545 A AU 2334797 A BR 9708519 A CA 2251694 A EP 0959855 A JP 11507286 T US 5957908 A	27-04-1999 22-10-1997 03-08-1999 09-10-1997 01-12-1999 29-06-1999 28-09-1999
US 4402690 A	06-09-1983	NONE	